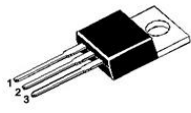
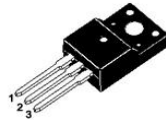


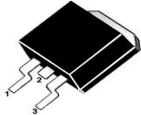
## LOW VF SCHOTTKY RECTIFIER



TO-220AB/CT



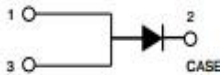
TO-220F/FCT



TO-263/DC



TO-252/CS



### FEATURES

- Low forward voltage
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- Guarding for over voltage protection



### APPLICATIONS

Low VF Schottky barrier rectifier are designed for high frequency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

### Primary Characteristic

$I_O$	10A
$V_{RRM}$	45V
$I_{FSM}$	180A
$V_F$	0.43V
$T_{Jmax}$	150°C

### MECHANICAL DATA

- **Case:** Molded plastic
- **Polarity:** As marked
- **Mounting Position:** Any
- **Molded Plastic:** UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Solder bath temperature 275°C maximum,10s per JESD 22-

### Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

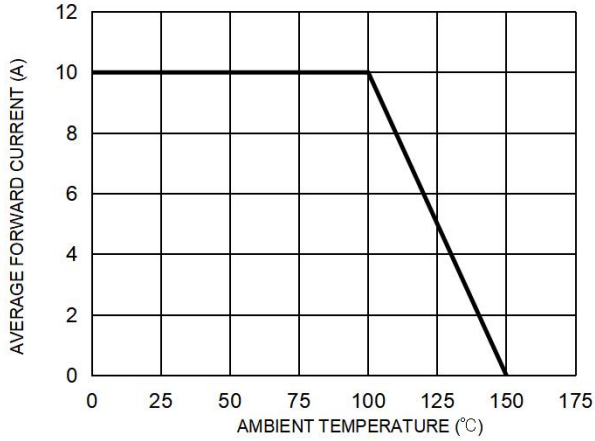
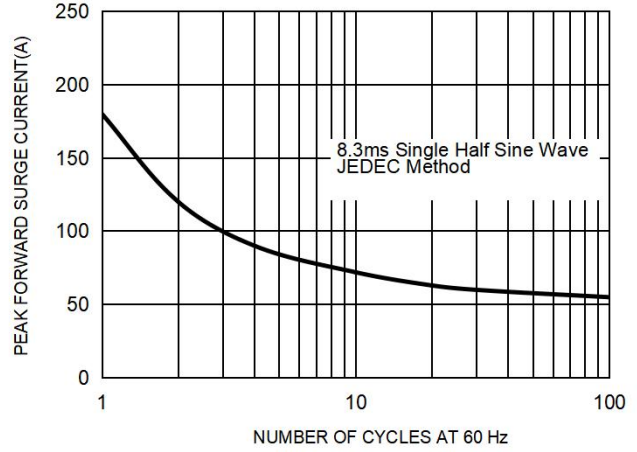
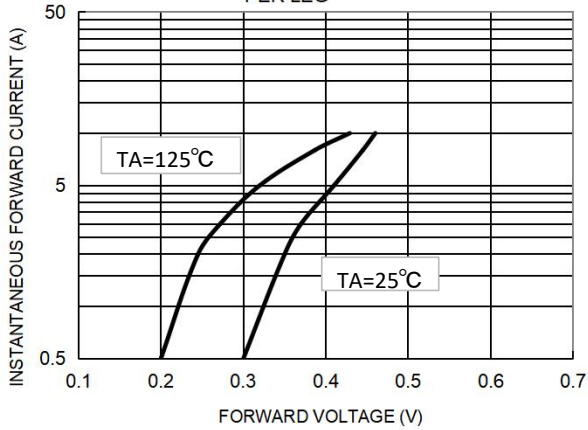
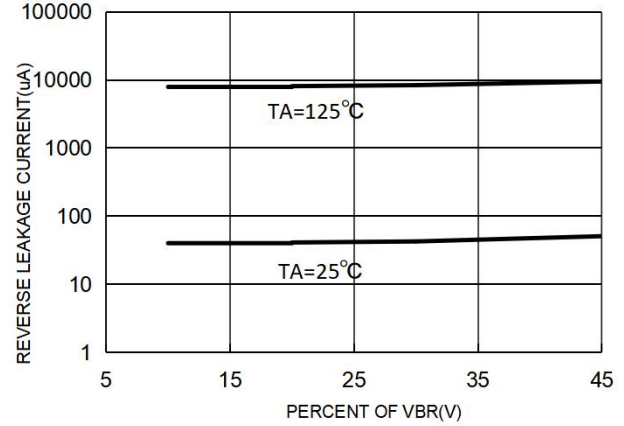
Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	45	V
Working Peak Reverse Voltage	$V_{RWM}$	45	V
Maximum DC Blocking Voltage	$V_{DC}$	45	V
Maximum Average Forward Rectified Current	$I_O$	10	A
Peak Forward Surge Current,8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	180	A
Operating Temperature Range	$T_J$	-50 to +150	°C
Storage Temperature Range	$T_{STG}$	-50 to +150	°C
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	2	°C/W
TO-220AB,TO-263,TO-252			
TO-220F			

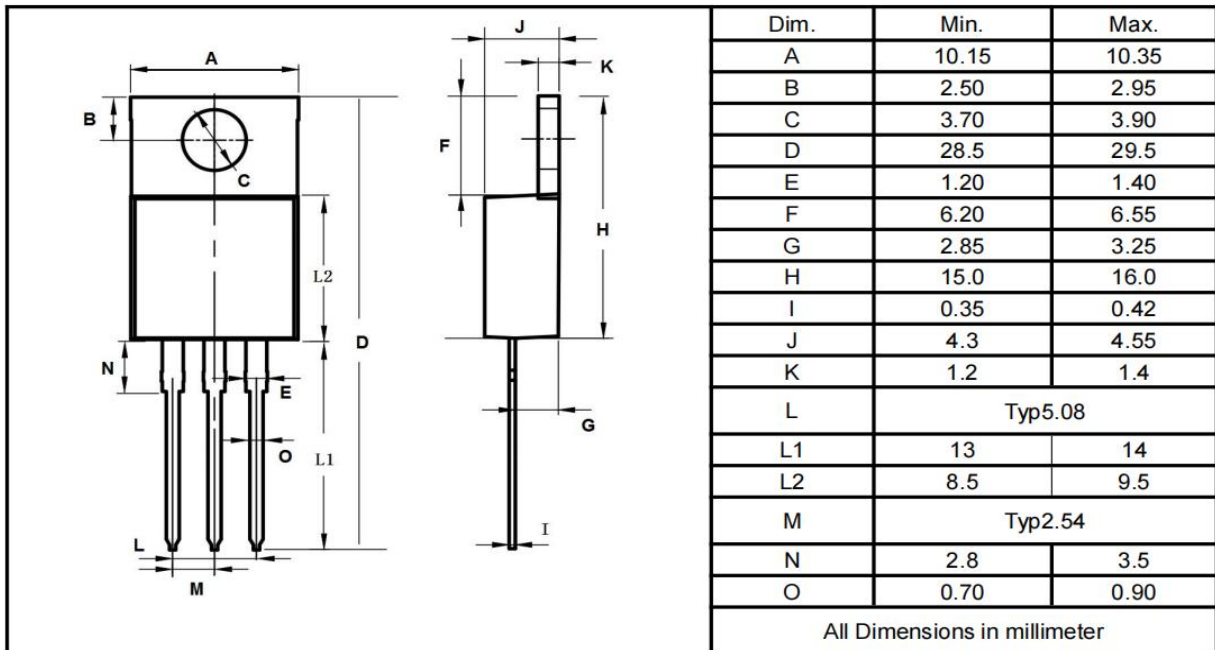
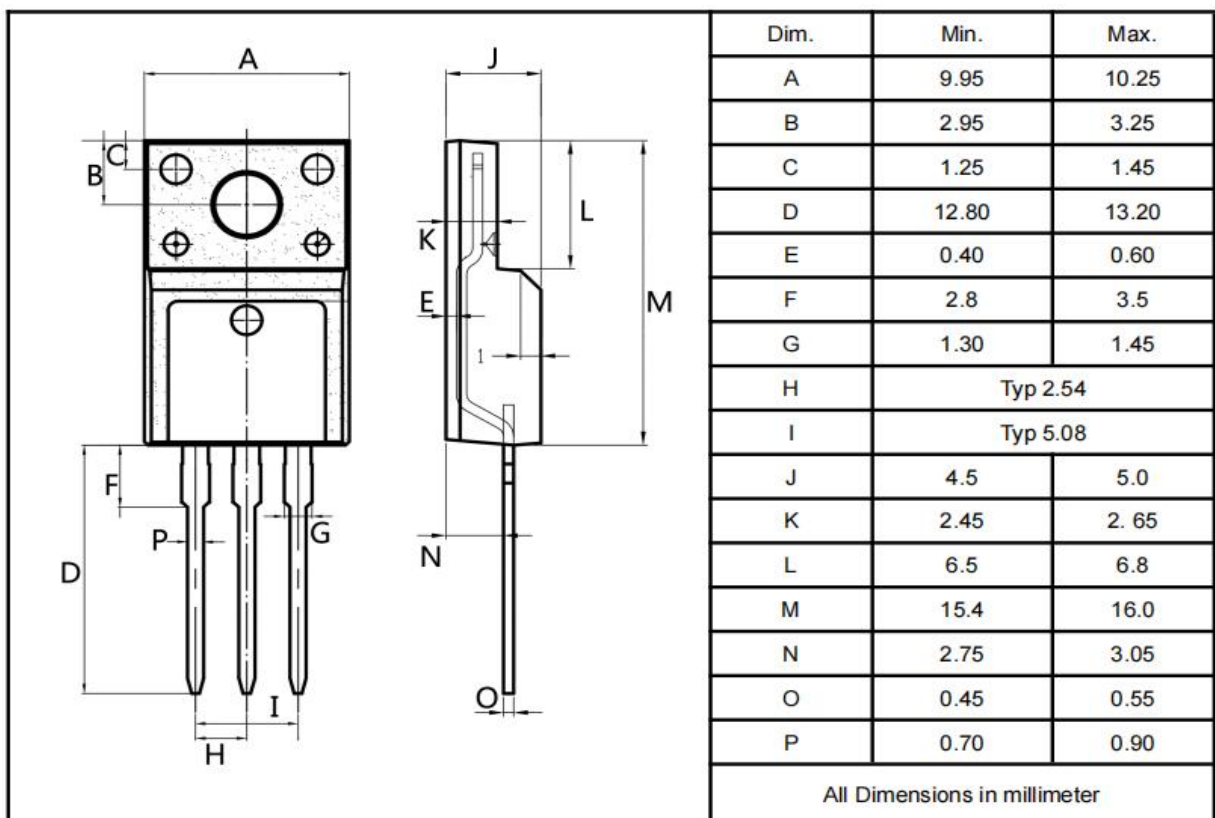
Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

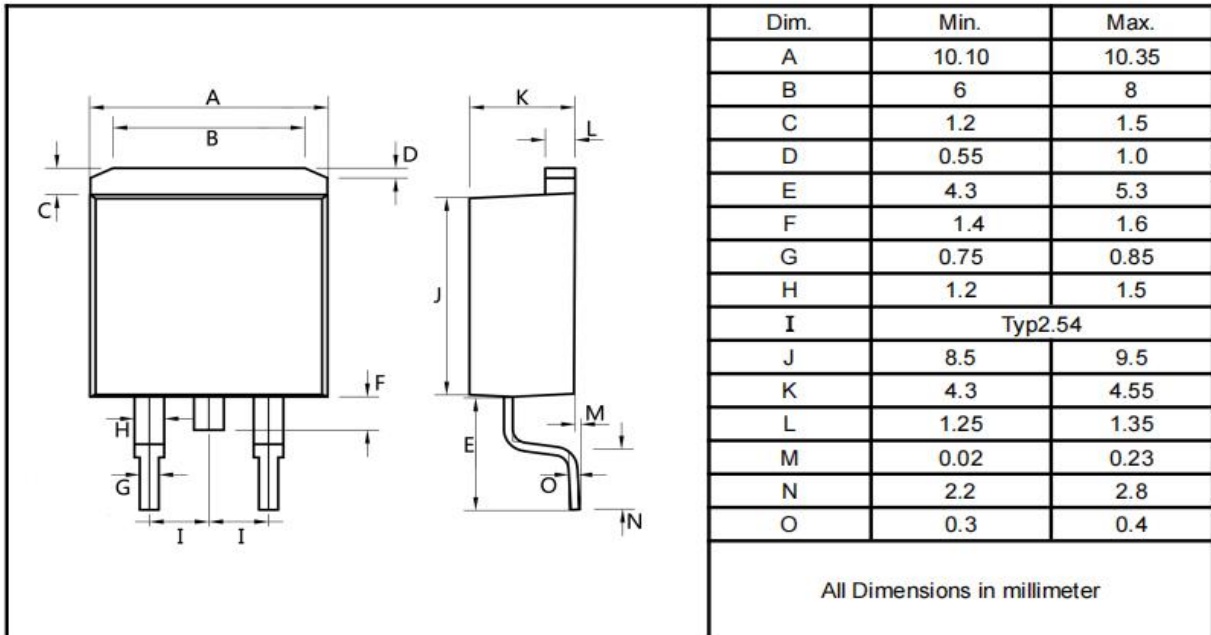
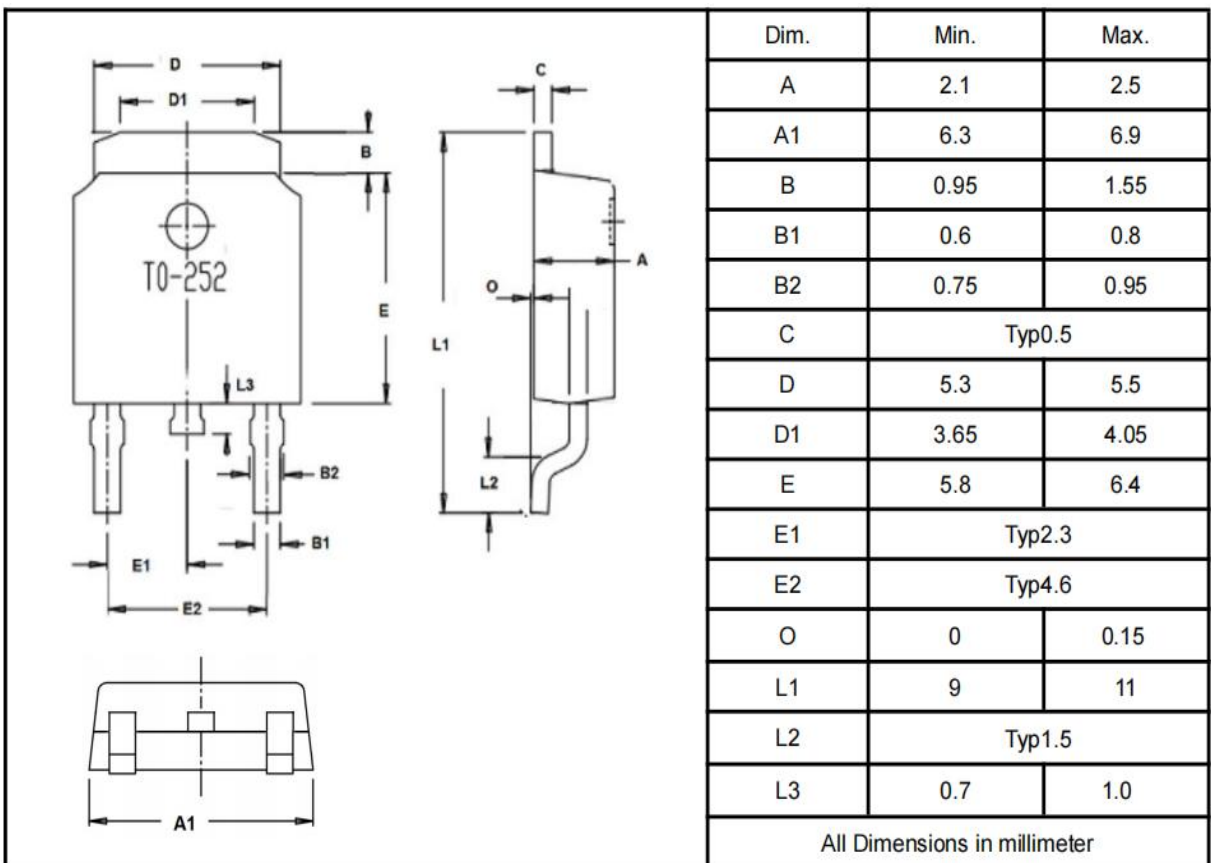
### Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		$V_F$	Typ.	Max.	V
at $I_F=3A$	TA=25°C		0.37	-	
	TA=125°C		0.27	-	
at $I_F=5A$	TA=25°C		0.41	-	
	TA=125°C		0.32	-	
at $I_F=10A$	TA=25°C		0.46	0.55	
	TA=125°C		0.43	-	
Maximum Reverse Current at $V_R=45V$	TA=25°C	$I_R$	50	100	μA
	TA=125°C		9	-	mA

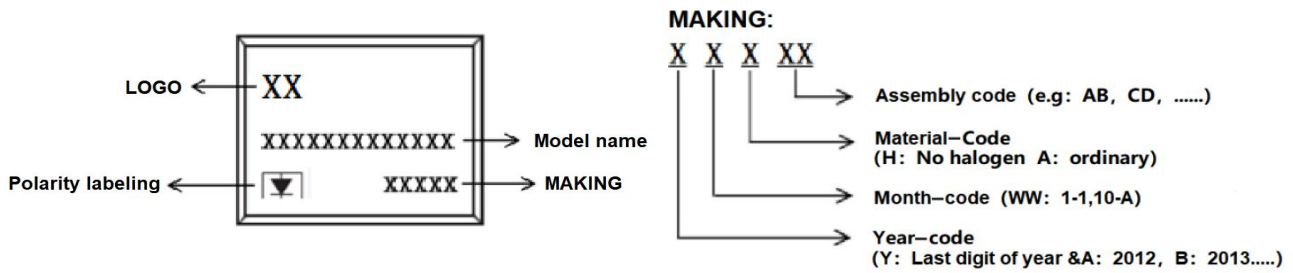
Note2:Pulse test: 300 μs pulse width, 1 % duty cycle

**RATINGS AND CHARACTERISTIC CURVES**
**FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE**

**FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG**

**FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG**

**FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG**


**Package Outline Dimensions millimeters**
**TO-220AB**

**TO-220F**


**Package Outline Dimensions millimeters**
**TO-263**

**TO-252**


## Marking on the body

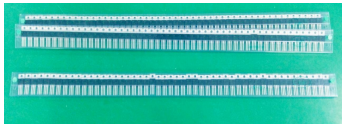





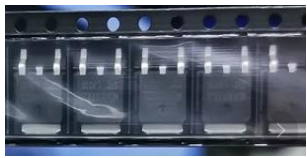




## Ordering information

Part Number	Package	Base Quantity	Delivery mode
SBT10L45SCT	TO-220AB	50 pcs / tube	1000pcs/box 5000pcs/carton
SBT10L45SFCT	TO-220F	50 pcs / tube	1000pcs/box 5000pcs/carton
SBT10L45SDC	TO-263	50 pcs / tube	1000pcs/box 5000pcs/carton
SBT10L45SDC-R	TO-263	800 pcs / reel	1600pcs/box 8000pcs/carton
SBT10L45SCS	TO-252	2500 pcs / reel	5000pcs/box 25000pcs/carton

Note: For Halogen Free molding compound, add "H" suffix to part number above.

## packing instruction

PKG	最小包装	内盒	外箱
TO-220AB TO-220F TO-263			
	50pcs/管	1000pcs/盒	5000pcs/箱
TO-263-R			
	800pcs/盘	1600pcs/盒	8000pcs/箱
TO-252			
	2500pcs/盘	5000pcs/盘	25000pcs/箱

### Notice

- All product, product specifications and data are subject to change without notice to improve. The right to explain is owned by LINGXUN electronics company.
- Confirm that operation temperature is within the specified range described in the product specification. Avoid applying power exceeding normal rated power;  
exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.
- LINGXUN electronics shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.